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ABSTRACT

A study evaluated the effectiveness of the 1993-94 Reading Recovery program as implemented in the Columbus, Ohio, public schools. The program featured individualized one-on-one lessons provided by 61 specially trained teachers serving 402 pupils. Data included results of administration of Metropolitan Achievement Tests and Scott Foresman text reading level testing. Pupils included in the final analyses for Desired Outcomes 1, 2, and 3 must have received 60 or more instructional lessons or have been successfully discontinued (completed) from the program. The treatment group consisted of the 145 pupils who were either discontinued (105) or received 60 or more lessons but not discontinued (40). Results indicated that: (1) 93.1% of the pupils displayed over time each of 3 strategic processing behaviors (monitoring reading, constructing meaning, and integrating sources of information); (2) 97.9% of the pupils were not retained (criterion was 75.0%); (3) 95.2% of the pupils read 5 or more books at text reading level 8 or above; (4) 434 different parents or guardians were involved in some way with the program; (4) 19% of the evaluation sample pupils reached the average NCE (42.2) for the district as a whole; (5) 34.6% (37) of the pupils from the 1991-92 treatment group and 42.7% (64) of the pupils from the 1992-93 treatment group were still being served in a compensatory education program; and (6) the overall retention rate for all 3 treatment groups was 4.3%. Findings suggest continuation of the program with attention given to 7 recommendations. (Contains 13 tables of data. Appendixes present survey and evaluation instruments.) (RS)

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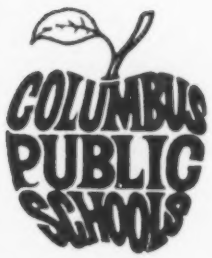
ED 386 697

FINAL EVALUATION REPORT

READING RECOVERY™ PROGRAM

1993-94



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Elementary and Secondary Education Act - Chapter 1

FINAL EVALUATION REPORT
READING RECOVERY™ PROGRAM
1993-94

ABSTRACT

Program Description: The purpose of the 1993-94 Reading Recovery program was to provide early intervention to underachieving first-grade pupils who appeared unlikely to learn to read successfully without intensive instruction. The program featured individualized one-on-one lessons provided by specially trained teachers. The lessons were based on observational tasks designed to provide a comprehensive assessment of the pupil's development of reading and writing strategies.

The Reading Recovery program was piloted in Columbus Public Schools during the 1984-85 school year, with the 1993-94 school year being the tenth continuous year of the program. The program was a joint effort of educators in the Columbus Public Schools, the College of Education of The Ohio State University, and the Ohio Department of Education and was funded by Elementary and Secondary Education (ESEA) - Chapter 1 monies. During 1993-94 the Reading Recovery program was located in 38 elementary schools, had a staff of 61 teachers (22.0 FTEs) and served 402 pupils. Most teachers served part-time in the program and part-time in the Early Literacy program.

Time Interval: For evaluation purposes the Reading Recovery program started on September 20, 1993 and continued through May 13, 1994. Pupils included in the final analyses for Desired Outcomes 1, 2, and 3 must have received 60 or more instructional lessons or have been successfully discontinued (completed) from the program. To be included in the analysis of standardized test achievement, pupils must have received 60 or more instructional lessons or have been successfully discontinued and have had a valid posttest score on a nationally standardized achievement test.

Activities: To help pupils develop reading strategies, daily 30-minute individualized lessons included a variety of instructional activities, such as reading and re-reading books while the teacher recorded their strategies and errors, writing and reading their own stories, letter identification, and sound analysis of words.

Achievement Objective: Pupils were to receive Reading Recovery instruction until they were ready to be successfully discontinued from the program. Discontinued pupils were those who successfully completed the program according to (a) predetermined levels on observational tasks indicating that the pupils were reading at the average level for the district, and (b) teacher judgment that the pupils had developed effective reading strategies and could learn in the normal classroom setting without extra individual help.

Evaluation Design: The evaluation design included three desired outcomes: (1) at least 50 percent of the pupils who had received 60 or more lessons or were discontinued would display at least once throughout the instructional period each of three reading strategic processing behaviors; (2) at least 75 percent of the pupils who had received 60 or more lessons or were discontinued would not be retained; and (3) at least 50 percent of pupils who received 60 or more lessons or were discontinued would read at least five books at text reading level 8 (appropriate Scott Foresman text reading level for promotion to grade 2) or above. In addition to the three desired outcomes, three evaluation questions were included in the evaluation design based upon two major program goals: to develop and provide the Reading Recovery program for first grade children, and to adopt and apply the necessary inservice program for teachers. Questions were asked in the following areas: (a) service patterns of pupils; (b) performance levels of Reading Recovery pupils on a standardized test of reading; and (c) long term effects.

The major evaluation effort was to be accomplished through teacher evaluation of pupil reading strategic processing behaviors, pupil independent reading achievement, and the administration of the Metropolitan Achievement Tests, Level Primer, Form L, 1985 (MAT6) for spring testing. Analyses of the standardized test data included percentiles and districtwide average NCE scores. Although not part of the evaluation design, parent involvement data were also collected by program teachers. Locally constructed

instruments were used to collect enrollment/attendance and parent involvement data. District computer files were used for retention data.

Major Findings/Recommendations: The Reading Recovery program served 402 pupils in 1993-94, with average pupil enrollment of 62.0 days. Average pupil attendance was 53.8 days and the average number of instructional lessons was 42.9. The treatment group consisted of the 145 pupils who were either discontinued (105) or received 60 or more lessons but not discontinued (40). Program developers have estimated that most pupils need approximately 60 lessons to complete the program. Of the treatment group pupils, 137 had valid MAT6 Total Reading scores, were English-speaking, and were included in the evaluation sample.

The three desired outcomes for the 1993-94 Reading Recovery program were met. Of the 145 treatment group pupils, 135 (93.1%) displayed over time each of the three reading strategic processing behaviors, including monitoring reading, constructing meaning, and integrating sources of information (criterion was 50.0%). Of the 145 pupils in the treatment group, retention data were available for 142 pupils. Of these 142 pupils, 139 (97.9%) were not retained (criterion was 75.0%). Of the 145 treatment group pupils, 138 (95.2%) read five or more books at text reading level 8 or above (criterion was 50.0%).

Records of parent contacts and activities maintained by program teachers for the 402 pupils served indicated 434 different parents or guardians were involved in some way with the program. These 434 individuals made a total of 1105 contacts with program teachers. The 145 treatment group pupils represented 36.1% of the 402 pupils served, but represented 51.0% (563) of the total number of contacts and 41.7% (181) of the individual parents involved in the program.

Twenty-six (19.0%) of the evaluation sample pupils reached the average NCE (42.2) for the district as a whole. The percentages of pupils who were at various percentile levels on the posttest were as follows: (a) 13.9% (19) were at the 50%ile or above (grade level); and (b) 81.0% (111) were below the 37%ile and still eligible for Chapter 1 services.

Results of the analyses of the long-term effects of Reading Recovery revealed the following. Of the former Reading Recovery pupils who were in a school and at a grade level where a compensatory education program was in operation in 1993-94, 34.6% (37) of the pupils from the 1991-92 treatment group and 42.7% (64) of the pupils from the 1992-93 treatment group were still being served in a compensatory education program. Of the 362 pupils from the 1991-92, 1992-93, and 1993-94 treatment groups who remained in the Columbus Public Schools through November 1994, 89.2% (323) followed a normal grade-level progression. The retention rates for grade 1 were: 1.7% for the 1991-92 treatment group, 8.1% for the 1992-93 treatment group, 2.1% for the 1993-94 treatment group, and 4.3% for the three treatment groups combined.

Based on evaluation results it is recommended that the Reading Recovery program be continued, with attention given to the following additional recommendations: (a) examining the process for transferring pupils from the Reading Recovery program to the Early Literacy program; (b) exploring ways to reduce the amount of time program teachers spend with record keeping; (c) increasing parent involvement; (d) identifying pupils needing special education instruction at the earliest possible date; (e) providing opportunities for co-ordination between the program and classroom teachers; (f) maintaining a viable inservice program for program teachers; and (g) establishing a structured process observation procedure.

FINAL EVALUATION REPORT
READING RECOVERY™ PROGRAM
1993-94

Program Description

The purpose of the 1993-1994 Reading Recovery™ program was to provide early intervention to underachieving first-grade pupils who appeared unlikely to learn to read successfully without intensive instruction. To accomplish this purpose the program featured individualized one-on-one lessons 30 minutes daily provided by specially trained teachers. The lessons were based on observational tasks which were designed to provide a comprehensive assessment of the pupil's development of reading and writing strategies.

The Reading Recovery program began in Columbus Public Schools during the 1984-85 school year, with a pilot program at 6 schools, serving 70 pupils taught by 14 teachers. During 1993-94, the program served pupils at 38 schools, with a teaching staff of 61 teachers (22.0 FTEs–Full Time Equivalents). Table 1 shows staffing, number of schools, and pupils served for the ten years of the program's existence.

Most Reading Recovery teachers were assigned individually to a building, working half the day in the Reading Recovery program and half the day in the Early Literacy program. Typically a program teacher taught three Reading Recovery pupils for 30 minutes each and four groups of six Early Literacy pupils for 40-45 minutes each.

In 1993-94 the Reading Recovery program was located in the following 38 elementary schools.

Schools Served by the Reading Recovery Program
1993-94

Arlington Park	East Columbus	Lincoln Park	Southwood
Avondale	East Linden	Linden	Sullivant
Beck	Eastgate	Livingston	Trevitt
Binns	Fairmoor	Main	Weinland Park
Broadleigh	Fairwood	Medary	West Broad
Burroughs	Heyl	North Linden	West Mound
Cassady	Highland	Ohio	Westgate
Dana	Hudson	Olde Orchard	Windsor
Deshler	Huy	Reeb	
Eakin	Innis	Second	

Schools were chosen for inclusion in the program according to the percent of pupils attending a school who were eligible for a free or reduced priced lunch (F & RPL). Those schools with the highest percentage F & RPL are included in the program each year, with the total number of schools involved in the program for a given year determined by the availability of funding for that year.

The 61 program teachers received support from two teacher leaders who served as trainers, resource teachers, program coordinators, and program teachers. The teacher leaders taught a required credit course for the first-year Reading Recovery teachers (10 teachers out of 61) and provided inservice training for the experienced program teachers (47 teachers out of 61). Additionally, four of the 61 teachers received extended training to become future teacher leaders. Funding for the program was provided by Elementary and Secondary Education (ESEA) - Chapter 1 monies.

Table 1

Staffing, Schools, and Pupils Served
Reading Recovery™ Program
Columbus Public Schools
1984-1994

School Year	Teachers	Teacher Full-Time Equivalents (FTE)	Schools	Pupils Served
1984-85[a]	14	7.0	6	70
1985-86	30	16.0	12	224
1986-87	52	26.0	20	335
1987-88	57[b]	29.0	26	393
1988-89	49[b]	23.8	26	283
1989-90	66[c]	29.0	31	514[d]
1990-91	60[e]	20.0	38	297
1991-92	48[f]	13.0	41	227
1992-93	66[g]	16.5	60	305
1993-94	61[h]	22.0	38	402

[a]Pilot year.
[b]Plus support staff including 3 teacher leaders and 1 Ohio State University affiliated teacher.
[c]Includes 5 teacher leaders and 3 teacher leaders-in-training.
[d]Includes 150 pupils with group service only.
[e]Includes 2 teacher leaders and 3 teacher leaders-in-training.
[f]Includes 2 teacher leaders and 4 teacher leaders-in-training.
[g]Includes 3 teacher leaders and 2 teacher leaders-in-training.
[h]Includes 2 teacher leaders and 4 teacher leaders-in-training.

At the beginning of the year, classroom teachers selected first-grade pupils who appeared to be most in need of reading help to perform two reading and writing observational tasks: Concepts About Print and Dictation (see Appendix A, pp. 22-23), which are two of the observational tasks designed by Marie Clay (1979), developer of the Reading Recovery program. Scores from these two tasks were used to determine a pupil's Selection Score. Selection Scores of 77 or below (see Appendix B, p. 25) qualified pupils for Reading Recovery or Early Literacy program service, pupils with the lowest scores being served first. The typical program teacher served 27 pupils, three Reading Recovery pupils and 24 Early Literacy pupils, with the three Reading Recovery pupils being the pupils with the lowest Selection Scores. After selection for the Reading Recovery program, pupils were administered four additional observational tasks: Letter Identification, Ohio Word Test, Writing Vocabulary, and Text Reading Level. These additional observational tasks were given to pupils to provide program teachers with more information about each

pupil before beginning program instruction. The six observational tasks were also administered at various times throughout the school year as pupils entered or exited the program and again at the conclusion of the program year.

Each pupil enrolled for individual service in the program spent approximately the first 10 days "Roaming Around the Known." During this period the Reading Recovery teacher built rapport with the pupil and provided an opportunity for the pupil to use the strategies he or she already knew in meaningful reading and writing activities. Once the Reading Recovery lessons began, a familiar pattern was established. A typical 30-minute lesson included most or all of the following activities.

1. Two or more familiar books from previous lessons were selected by the pupil to be read to the teacher.
2. The teacher took a running record while the pupil read the book that was introduced to the pupil and attempted on the previous day. During this time the Reading Recovery teacher changed the focus from instruction to observation. Meaning, structure, and visual cues were analyzed to determine which cues were used or neglected by the pupil. Each day the teacher carefully recorded the pupil's development of reading strategies (e.g., self-monitoring, searching for cues, cross-checking, self-correcting) or ability to determine the meaning of continuous text.
3. During letter identification, plastic letters were used on a magnetic board.
4. The pupil dictated a story and then learned to write and read it with the teacher's help.
5. During sound analysis of words from a written story, the pupil was encouraged to say the words slowly and write what could be heard.
6. A completed story was cut into separate words, which were scrambled, and then rearranged in the correct order by the pupil.
7. A new book was introduced by the teacher.
8. The new book was attempted by the pupil.

When it was determined by the Reading Recovery teacher, in consultation with the classroom teacher and the teacher leader, that a pupil had made sufficient progress to work successfully in the normal classroom setting without extra help, the pupil was recommended to be discontinued. Discontinued pupils were defined as those who had successfully completed the program according to predetermined levels on the observational tasks and had been released from the program. When pupils left the program (e.g., were discontinued, moved from the school, were placed in special programs), new pupils entered the program either from the Early Literacy program or from a waiting list.

Evaluation Design

For program year 1993-94, three desired outcomes were established for the Reading Recovery program. Data collected in four major areas were incorporated in the analyses of the desired outcomes: pupil census information, pupil reading strategic processing behavior information, pupil retainee information, and pupil independent reading achievement information. Although not part of the evaluation design, parent involvement information was also collected by program teachers.

Desired Outcome 1:

> At least 50 percent of pupils who received 60 or more lessons or were discontinued will display evidence of each strategic processing behavior at least once during the treatment period when reading appropriate instructional text to the satisfaction of the program teacher.

Desired Outcome 2:

> At least 75 percent of pupils who received 60 or more lessons or were discontinued will demonstrate satisfactory progress in the regular classroom as demonstrated by promotion to grade 2.

Desired Outcome 3:

At least 50 percent of pupils who receive 60 or more lessons or were discontinued will read at least five books at text reading level 8 or above as certified by the program teacher.

In addition to the desired outcomes, evaluation questions were developed based on two goals identified from the 1984-85 proposal. The goals were:

1. To develop and provide the Reading Recovery program for first-grade pupils.

   The individual child who has been identified as being "at risk" of failure has recovered essential reading strategies and can function satisfactorily in the regular classroom.

2. To adapt and apply the necessary inservice program for teachers.

   To implement the Reading Recovery techniques, teachers will receive intensive training over the period of a year while simultaneously implementing the program with children through clinical and peer-critiquing experiences guided by a skilled instructor.

Based on these two goals, three evaluation questions regarding the 1993-94 Reading Recovery program were developed. The questions focused on the following areas: service patterns, posttest performance on a standardized test of reading, and long-term effects of the program. The specific evaluation questions and analyses for each are listed below.

Question 1 What were the service patterns of pupils in the Reading Recovery program?

- Analysis 1.1 Number of pupils who were served.
- Analysis 1.2 Number of pupils who were discontinued.
- Analysis 1.3 Demographic characteristics of pupils who were served.
- Analysis 1.4 Demographic characteristics of pupils who were discontinued.

Question 2 What were the performance levels of Reading Recovery pupils on a standardized test of reading?

- Analysis 2.1 Number and percent of pupils reaching the 50%ile in Total Reading on the MAT6.
- Analysis 2.2 Number and percent of pupils reaching the 37%ile in Total Reading on the MAT6.
- Analysis 2.3 Number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6.
- Analysis 2.4 Analysis of central tendency and distribution of NCE scores of Total Reading on the MAT6.

Question 3 What were the long-term effects of the Reading Recovery program?

- Analysis 3.1 Number and percent of pupils in the 1991-92 and 1992-93 Reading Recovery treatment groups who in 1993-94 attended a school where a compensatory program was available and who were served by a compensatory program.
- Analysis 3.2 Number and percent of pupils in the 1991-92, 1992-93, and 1993-94 Reading Recovery treatment groups who followed a normal grade level progression.

Instruments

The evaluation design provided for the collection of data in the following six areas of operation for the overall program. Included in the collection of data was parent involvement information, which was not part of the evaluation design.

1. Teacher Census Information

   Teacher Census Form (TCF) was completed by program teachers to obtain staffing information, including employment status, periods of program instruction, and school assignment (see Appendix C, p. 27).

2. Pupil Census Information

   Calendar Worksheet/Parent Involvement Log (CW/PIL) was used to record pupil service information, Selection Scores, and parent involvement data (see Appendix D, pp. 29-30).

   Pupil Roster was completed by program teachers to indicate official enrollment of each pupil into the program. Program teachers identified pupils served from computer generated lists of all first grade pupils in their buildings. Information included pupil name, student number, date of birth, program teacher name, school code, and program code.

   Pupil Data Sheet (PDS) was a computer generated preprinted form used by program teachers to summarize enrollment/attendance data, number of lessons, reading strategic processing behavior information, independent reading achievement information, parent involvement, discontinued status, hours of instruction per week, English-speaking status, and progress made for each pupil served (see Appendix G, pp. 36-37).

3. Pupil Reading Strategic Processing Behavior Information

   Evidence of Strategic Processing Collection Form was used by program teachers throughout the year to record student behaviors which display strategic processing (see Appendix E, p. 32).

   Pupil Data Sheet (PDS), described earlier, was a computer generated preprinted form used by program teachers to summarize reading strategic processing behavior information for each pupil served (see Appendix G, pp. 36-37).

4. Retention Information

   District computer files were utilized to access retention data.

5. Pupil Independent Reading Achievement/Pupil Standardized Achievement Test Information

   Independent Reading Record Sheet was used by program teachers throughout the year to record the successful reading experiences of program pupils (see Appendix F, p. 34).

   Pupil Data Sheet (PDS), described earlier, was a computer generated preprinted form used by program teachers to summarize independent reading achievement information for each pupil served (see Appendix G, pp. 36-37).

   The Metropolitan Achievement Tests (MAT6, 1985) was used to obtain standardized achievement test information for all pupils in the Reading Recovery program. Results from the test were used as pretest scores for pupils in grade 2. This test series has empirical norms for spring, established April 8 to May 15, 1985. The description of the MAT6 is as follows:

Level	Form	Recommended Grade Range	Subtests	Number of Items
Primer	L	K.5 - 1.9	Vocabulary	15
			Word Recognition Skills	36
			Reading Comprehension	38
			Total Reading	89

The MAT6 tests were administered by classroom and program teachers. Testing occurred March 21-24, 1994. All testing was done on level, as indicated in the table above.

6. Parent Involvement Information

Parent Involvement Log (PIL) was used to record parent involvement data, including the date, type of activity/involvement, and name of attendee(s) (see Appendix D, p. 30).

Pupil Data Sheet (PDS), described earlier, was a computer generated preprinted form used by program teachers to summarize data collected from the Parent Involvement Logs for each pupil served (see Appendix G, pp. 36-37).

Inservice evaluation information, data which were not specified in the Reading Recovery evaluation design but were collected routinely, is not included here but has been submitted to the Department of Federal and State Programs, Columbus Public Schools. Reports are available upon request.

Major Findings

Pupils Served/Desired Outcomes

During the 1993-94 school year, a total of 402 pupils were served by the Reading Recovery program. The treatment group for 1993-94 was limited to the 105 pupils who were discontinued and the 40 additional pupils who had a minimum of 60 lessons but were not discontinued (a total of 145 pupils or 36.1% of all pupils served). The use of the 60 lesson distinction was based on the premise in Marie Clay's research in New Zealand (1979) which determined that an average of 60 lessons was needed for pupils to be discontinued and to continue to work successfully in the normal classroom setting. Thus, the 257 other pupils served were excluded from the treatment group. The evaluation sample used for evaluation of standardized achievement test performance was restricted to those pupils who were in the treatment group, were English-speaking, and had a valid MAT6 Total Reading score from the spring administration of the standardized achievement test. Of the 145 pupils in the treatment group, 8 pupils were excluded from the evaluation sample because of incomplete test data. The evaluation sample was comprised of the remaining 137 pupils, which was 94.5% of the treatment group and 34.1% of the 402 pupils served.

Desired Outcome 1:

At least 50 percent of pupils who received 60 or more lessons or were discontinued will display evidence of each strategic processing behavior at least once during the instructional period when reading appropriate instructional text to the satisfaction of the program teacher.

Desired Outcome 1 was based on the number of pupils who were discontinued from the Reading Recovery program or who received 60 or more lessons during the school year. A total of 145 pupils met one of these criteria. Of these 145 pupils, 135 (93.1%) displayed each of the three strategic processing behaviors (monitors reading, constructs meaning, integrates sources of information), thus allowing Desired Outcome 1 to be met.

Desired Outcome 2:

At least 75 percent of pupils who received 60 or more lessons or were discontinued will demonstrate satisfactory progress in the regular classroom as demonstrated by promotion to grade 2.

Desired Outcome 2 was also based on the number of pupils who were discontinued from the Reading Recovery program or who had received 60 or more lessons during the school year. A total of 145 pupils met one of these criteria. Of these 145 pupils, retention data were available for 142 pupils. Of these 142 pupils, 139 (97.9%) were not retained. Thus, Desired Outcome 2 was met.

Desired Outcome 3:

At least 50 percent of pupils who receive 60 or more lessons or were discontinued will read at least five books at text reading level 8 or above as certified by the program teacher.

Desired Outcome 3 was also based on the number of pupils who were discontinued from the Reading Recovery program or who had received 60 or more lessons during the school year. Of the 145 pupils who met one of these criteria, 138 (95.2%) read at least five books at text reading level 8 or above, thus allowing Desired Outcome 3 to be met.

Parent Involvement

Records of parent contacts and activities were maintained by program teachers using the Parent Involvement Log (Appendix D, p. 30) to document the date of parent contact, the type of activity, and which parents or guardians participated in each activity. Table 2 displays parent involvement data collected by program teachers on the Parent Involvement Log for each of the 402 pupils served in the program. The data indicate that a total of 434 different parents or guardians were involved in some way with the program and that program teachers made 1105 contacts with these 434 individuals. It should be noted that the total number of parents involved is not additive, as a parent could be involved in more than one activity for the year. The majority of contacts (78.2%) with parents or guardians was through individual parent conferences (864 contacts). The smallest number of contacts with parents or guardians involved planning, operating, and/or evaluating the program, with 18 contacts (1.6% of all contacts made). Table 2 also displays parent involvement data for the parents of the 145 treatment group pupils. The 145 treatment group pupils represented 36.1% of the 402 pupils served, but represented 51.0% (563) of the total number of contacts made for the year and 41.7% (181) of the individual parents involved in the program. Similar to parent involvement for all pupils served, the majority (75.1%) of the parent contacts for treatment group pupils was with individual conferences (423 contacts). The smallest number of contacts with parents or guardians of treatment group pupils also involved planning, operating, and/or evaluating the program, with 14 contacts (2.5% of all contacts made).

Program teachers also maintained records, using the Parent Involvement Log, if parents helped their child with homework and if the parents read to their child or the child read to the parents. Of the 402 pupils served, 87.3% (351) had parents who helped with homework and 89.6% (360) either read to their parents or had their parents read to them. For the 145 treatment group pupils, 93.8% (136) had parents who helped with homework and 94.5% (137) either read to their parents or had their parents read to them.

Evaluation Questions

Question 1 What were the service patterns of pupils in the Reading Recovery program?

Analysis 1.1 Number of pupils who were served.

Analysis 1.2 Number of pupils who were discontinued.

Analysis 1.3 Demographic characteristics of pupils who were served.

Analysis 1.4 Demographic characteristics of pupils who were discontinued.

The service patterns of the Reading Recovery program are reported below in the following order: the number of pupils who were served and their demographic characteristics; the number of lessons received; and the number of pupils who were discontinued and their demographic characteristics.

The 1993-94 Reading Recovery program served a total of 402 first-grade pupils in 38 schools (see Table 1, page 2). During 1992-93, 305 pupils were served in 60 schools, an increase in pupils served of approximately 31.8% (97 pupils) for school year 1993-94. This increase in pupils served resulted in part from an increase in program teachers from 16.5 FTEs to 22.0 FTEs, a 33.3% increase in teaching staff. Reading Recovery pupils received 30-minute lessons daily, for an average of 2.5 hours of instruction per week.

Table 2

Number of Parents
Reported for Parent Involvement Activities for
Reading Recovery Program
1993-94

Program Activities	Totals for Year: Treatment Group Pupils[a] (N=145)	Totals for Year: All Pupils Served (N=402)
1. Parents involved in the planning, operation and/or evaluation of your unit		
Number of Parents	10	13
Number of Contacts	14	18
2. Group meetings for parents		
Number of Parents	33	58
Number of Contacts	42	71
3. Individual parent conferences		
Number of Parents	174	413
Number of Contacts	423	864
4. Parental classroom visits or field trips		
Number of Parents	53	95
Number of Contacts	72	126
5. Visits by teacher to parents' homes		
Number of Parents	9	22
Number of Contacts	12	26
Total Parents Contacted[b]	181	434
Total Number of Contacts	563	1105

[a] Treatment Group Pupils are those who were discontinued from the program or had 60 or more lessons.

[b] Total Parents Contacted is based on an unduplicated count of parents contacted, which is less than the sum obtained when combining the Number of Parents for Activities 1-5.

The demographic characteristics (gender, race, and socio-economic status) of the 402 pupils who were served in the program were analyzed from the school district's Student Master File (SMF), Pupil Information File (PIF), and November 1993 official enrollment tape. The data were based on information reported by parents and/or school personnel. Of the pupils served, 60.7% (244) were boys and 39.3% (158) were girls (see Table 3). As for the distribution by race, 42.0% (169) of the pupils served were identified as Non-Minority, 56.0% (225) were Black, and the remaining 2.0% (8) were Other Minority (see Table 4). The Other Minority category included Spanish Surname, Asian American, and American Indian. Socio-economic status was indicated by pupil eligibility for subsidized (free or reduced price) lunch as of June 1994. Of the 402 pupils served, 88.3% (355) were on free lunch, 2.5% (10) were on reduced price lunch, and 9.2% (37) were not on subsidized lunch (see Table 5).

For evaluation purposes, the pupils served in the program were divided into three categories: discontinued pupils (those who had successfully completed the program); not discontinued pupils who had received 60 or more lessons; and other pupils served (those who were not discontinued and who received fewer than 60 lessons). Of the 402 pupils served during 1993-94, 26.1% (105) were discontinued, 10.0% (40) were not discontinued but received 60 or more lessons, and 63.9% (257) were other pupils served (see Table 9). For 1992-93, program data revealed that 26.9% of pupils were discontinued, 26.2% were not discontinued but received 60 or more lessons, and 46.9% were other pupils served. The data show that the percent of pupils who received 60 or more lessons but were not discontinued decreased and that the percent of other pupils served increased. When looking at only treatment group pupils (those who were discontinued or had 60 lessons or more), data show that 72.4% (105 out of 145 pupils) were discontinued during 1993-94. During 1992-93, there were 162 treatment group pupils, with 82 (50.6%) being discontinued, an increase of over 20 percent from the 1992-93 to 1993-94 school year.

Enrollment data indicate that for 1993-94, average pupil enrollment was 62.0 days, compared to average pupil enrollment of 76.7 days in 1992-93. The average pupil attendance was 53.8 days in 1993-94, compared to 66.7 days for 1992-93. The number of lessons completed by pupils ranged from none to 114, with an average of 42.9 lessons, compared to an average of 55.2 lessons in 1992-93. It was possible for a pupil to be enrolled in the program and receive no lessons. During the first 10 days of program attendance, pupils are "Roaming Around the Known." These 10 days count as days of enrollment and attendance, but not as days of lessons. During 1993-94, 15 pupils were enrolled and attended the program, but withdrew before they could begin lessons, and therefore had no lessons recorded. The number of lessons completed by pupils who were discontinued ranged from 6 to 110, with an average of 58.8 lessons. The number of lessons completed by pupils who were not discontinued (the two other pupil categories combined) ranged from none to 114 lessons, with an average of 37.3 lessons. Of the 98 pupils who received 60 or more lessons, 59.2% (58) were discontinued and 40.8% (40) were not discontinued. A distribution of the number of lessons completed by pupils in the three pupil categories is shown in Table 9. During 1993-94, the average number of pupils served by each teacher (22.0 FTEs) was 18.3 pupils and the average number of pupils discontinued by each teacher was 4.8 pupils, compared with 18.5 pupils served and 5.0 pupils discontinued by each teacher in 1992-93.

An examination of the 105 pupils who were discontinued from the program revealed that 66.7% (70) of the discontinued pupils were boys, while 60.7% (244) of the total pupils served were boys and that 33.3% (35) of discontinued pupils were girls, while 39.3% (158) of all pupils served were girls (see Tables 3 and 6). Of the 244 boys served, 28.7% were discontinued and of the 158 girls served, 22.2% were discontinued. The analysis by race indicated that 50.5% (53) of the discontinued pupils were Black, compared with 56.0% Black pupils for all pupils served. Non-minorities made up 45.7% (48) of discontinued pupils and Other Minorities 3.8% (4) of discontinued pupils (see Tables 4 and 7). Of the 105 discontinued pupils, 81.9% (86) were on free lunch, 1.9% (2) were on reduced lunch, and 16.2% (17) were not on subsidized lunch. When comparing these figures to all pupils served, smaller percentages of discontinued pupils were on free or reduced price lunch and a higher percentage of discontinued pupils were not on subsidized lunch (see Tables 5 and 8).

Question 2 What were the performance levels of Reading Recovery pupils on a standardized test of reading?

Analysis 2.1 Number and percent of pupils reaching the 50%ile in Total Reading on the MAT6.

Table 3

Percent and Number of Reading Recovery Pupils Served by Gender 1993-94

Gender	%	N
Boys	60.7	(244)
Girls	39.3	(158)
Total	100.0	(402)

Table 4

Percent and Number of Reading Recovery Pupils Served by Race 1993-94

Race	%	N
Non-Minority	42.0	(169)
Black	56.0	(225)
Other Minority[a]	2.0	(8)
Total	100.0	(402)

[a] Includes Spanish Surname, Asian American, and American Indian

Table 5

Percent and Number of Reading Recovery Pupils Served by Subsidized Lunch Status 1993-94

Subsidized Lunch Status	%	N
Free	88.3	(355)
Reduced	2.5	(10)
Paying	9.2	(37)
Total	100.0	(402)

Note. Based on June 1994 data

Table 6

Percent and Number of Reading Recovery Pupils Discontinued by Gender 1993-94

Gender	%	N
Boys	66.7	(70)
Girls	33.3	(35)
Total	100.0	(105)

Table 7

Percent and Number of Reading Recovery Pupils Discontinued by Race 1993-94

Race	%	N
Non-Minority	45.7	(48)
Black	50.5	(53)
Other Minority[a]	3.8	(4)
Total	100.0	(105)

[a] Includes Spanish Surname, Asian American, and American Indian

Table 8

Percent and Number of Reading Recovery Pupils Discontinued by Subsidized Lunch Status 1993-94

Subsidized Lunch Status	%	N
Free	81.9	(86)
Reduced	1.9	(2)
Paying	16.2	(17)
Total	100.0	(105)

Note. Based on June 1994 data

Table 9

Percent and Number of Reading Recovery Pupils
Served by Pupil Category and Number of Lessons
1993-94

Number of Lessons	Pupil Category: Discontinued Pupils[a]		Pupil Category: Not Discontinued Pupils[b]		Pupil Category: Other Pupils Served[c]		Total Pupils Served	
	%	n	%	n	%	n	%	N
Fewer than 60								
0-9	1.9	(2)			14.0	(36)	9.5	(38)
10-19	3.8	(4)			10.9	(28)	8.0	(32)
20-29	5.7	(6)			17.1	(44)	12.4	(50)
30-39	9.5	(10)			21.0	(54)	15.9	(64)
40-49	12.4	(13)			28.4	(73)	21.4	(86)
50-59	11.4	(12)			8.6	(22)	8.5	(34)
Subtotal	44.8	(47)			100.0	(257)	75.6	(304)
60 or More								
60-69	23.8	(25)	42.5	(17)			10.5	(42)
70-79	15.2	(16)	20.0	(8)			6.0	(24)
80-89	5.7	(6)	12.5	(5)			2.7	(11)
90-99	7.6	(8)	15.0	(6)			3.5	(14)
100-109	1.9	(2)	7.5	(3)			1.2	(5)
110-119	1.0	(1)	2.5	(1)			0.5	(2)
Subtotal	55.2	(58)	100.0	(40)			24.4	(98)
Total	100.0	(105)	100.0	(40)	100.0	(257)	100.0	(402)

[a] Discontinued pupils could have any number of lessons
[b] Not discontinued pupils with 60 or more lessons
[c] Other pupils served with fewer than 60 lessons

Analysis 2.2 Number and percent of pupils reaching the 37%ile in Total Reading on the MAT6.

Analysis 2.3 Number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6.

Analysis 2.4 Analysis of central tendency and distribution of NCE scores of Total Reading on the MAT6.

MAT6 test scores from spring 1994 were analyzed for the 137 pupils in the evaluation sample and for certain subgroups within the evaluation sample (see Tables 10 and 11). Table 10 presents data showing the number and percent of pupils reaching the 37%ile and 50%ile in Total Reading on the MAT6 spring testing. Of the 137 pupils in the evaluation sample, 19.0% (26) reached the 37%ile on the test, with 13.9% (19) reaching the 50%ile on the test. The remaining 111 pupils (81.0%) in the evaluation sample had test scores below the 37%ile, indicating that they were still eligible for Chapter 1 program service. Those pupils who were successfully discontinued from the program reached the 37%ile and 50%ile on the test at much higher percentages than did those pupils who were not discontinued and received 60 or more lessons. Of the 97 discontinued pupils, 25.8% (25) reached the 37%ile and 18.6% (18) reached the 50%ile, but only 2.5% (1) of the 40 not discontinued pupils who received 60 or more lessons reached the 37%ile and 50%ile.

When comparing the percents of pupils reaching the 37%ile and 50%ile in Total Reading on spring testing over the eight year period from 1987 to 1994, the data reported in Table 11 show that from the 1992-93 to 1993-94 school year there was a decrease in the percent of pupils reaching the 37%ile (23.1% to 19.0%) and a decrease in the percent of pupils reaching the 50%ile (17.9% to 13.9%). The data also indicate that when the test was changed from the CTBS, 1981, to the MAT6, 1985, beginning with the 1988-89 school year, test scores dropped. The decrease, in part, resulted from the MAT6, 1985, being considered to be a more difficult test than the CTBS, 1981. Research indicates that tests normed in 1985 would be more difficult than those normed in 1981 because reading scores nationwide rose over the period from 1981-1985. Another possible explanation for the dramatic decrease in 1988-89 may be attributed to the inappropriateness of the pretest level of the MAT6, 1985, administered at that time. The MAT6 results may not have reflected true pupil performance during 1988-89. The pretest level was found to be too difficult for low-achieving pupils, while the posttest level was found to be too easy for the average and above-average pupils. More appropriate pretest and posttest levels were administered in 1989-90 and thereafter. The increases in the percents of pupils reaching the 37%ile and 50%ile in Total Reading during 1990-91 and 1991-92 can, in part, be attributed to the selection process for pupils into the program. Prior to 1990-91, pupils scoring the lowest on the selection test were served by the Reading Recovery program. But in 1990-91, with the establishment of the Early Literacy program, the lowest pupils were served in Early Literacy and not Reading Recovery. Also, many pupils entered the Reading Recovery program after having been served in the Early Literacy program, resulting in pupils entering the Reading Recovery program with higher reading skills and strategies. But again in 1992-93 and 1993-94 the lowest pupils were served in Reading Recovery and not Early Literacy. This, in part, may attribute to the decrease in the percents of pupils reaching the 37%ile and 50%ile in Total Reading from the 1991-92 school year to the 1992-93 school year, and again from 1992-93 to 1993-94.

The data derived from Analysis 2.3, relating to the number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6, show that of the 137 pupils in the evaluation sample, 26 (19.0%) reached the average NCE (42.2 NCEs) for the district in Total Reading. Of the 97 pupils in the evaluation sample who were successfully discontinued, 25 (25.8%) reached the district average, while only one (2.5%) of the evaluation sample pupils who was not discontinued and received 60 or more lessons (40) reached the district average NCE for the posttest.

For analysis 2.4 the Shapiro-Wilk W Test was run to determine whether or not the distribution of the Total Reading scores was relatively normal. Results indicated the distribution of 137 scores did differ significantly from a normal distribution, suggesting that the scores were not normally distributed at posttesting. Further examination of the data revealed that the distribution was slightly different from a normal distribution; however, the mean was not substantially higher than the median and no significant number of students scored below the guess level. Thus, the Shapiro-Wilk W Test, a very powerful test

Table 10
Percent and Number of Evaluation Sample Pupils
Reaching 37%ile and 50%ile on MAT6
Total Reading by Pupil Category
1993-94

Pupil Category	N	Total Reading			
		37%ile		50%ile	
		%	n	%	n
Discontinued	97	25.8	25	18.6	18
Not Discontinued and 60 or More Lessons	40	2.5	1	2.5	1
Total Sample	137	19.0	26	13.9	19

Table 11
Percent and Number of Evaluation Sample Pupils
Reaching 37%ile and 50%ile on MAT6
Total Reading by Year
1987-94

School Year	N	Test	Total Reading			
			37%ile		50%ile	
			%	n	%	n
1986-87	189	CTBS, 1981	38.6	73	18.5	35
1987-88	253	CTBS, 1981	33.2	84	15.0	38
1988-89	104	MAT6, 1985	22.1	23	11.5	12
1989-90	184	MAT6, 1985	22.8	42	15.2	28
1990-91	139	MAT6, 1985	37.4	52	23.7	33
1991-92	111	MAT6, 1985	51.4	57	35.1	39
1992-93	156	MAT6, 1985	23.1	36	17.9	28
1993-94	137	MAT6, 1985	19.0	26	13.9	19

(Shapiro, Wilk, and Chen, 1968) when testing for departures from normality, indicates there were departures from normality, however, the additional analyses reveal that these departures are not great enough for concern.

Question 3 What were the long-term effects of the Reading Recovery program?

Analysis 3.1 Number and percent of pupils in the 1991-92 and 1992-93 Reading Recovery treatment groups who in 1993-94 attended a school where a compensatory program was available and who were served by a compensatory program.

Analysis 3.2 Number and percent of pupils in the 1991-92, 1992-93, and 1993-94 Reading Recovery treatment groups who followed a normal grade level progression.

Analysis 3.1 and 3.2 were conducted from available follow-up data for pupils who were in the 1991-92, 1992-93, and 1993-94 treatment groups. The original 1991-92 treatment group was comprised of 117 pupils, the 1992-93 treatment group was comprised of 162 pupils, and the 1993-94 treatment group was comprised of 145 pupils. The number of pupils included in the analyses for Question 3 varied due, in part, to pupil mobility, the timing of data collection, and different restrictions inherent in the various analyses.

Table 12 contains a summary of results for Analysis 3.1, the study of the 1991-92 and 1992-93 Reading Recovery treatment group pupils who were served by a compensatory program in 1993-94. The analysis included three compensatory programs: the Chapter 1 Reading program, the Early Literacy program, and the Reading Recovery program. Pupils who were on a waiting list to be served by a compensatory education program were not included in Analysis 3.1. The criterion scores used to establish eligibility for program service varied from program to program. Availability of service depended on the number of pupils qualifying for service at a particular building and the number of compensatory education teachers assigned to that building.

Of the 117 pupils in the 1991-92 Reading Recovery treatment group, 107 pupils were in a school and at a grade level where a compensatory program was in operation during the 1993-94 school year (see Table 12). Of these 107 pupils, 34.6% (37) were served in a compensatory program. By grade level, 80.0% (4) of the five pupils in grade 2 were served, compared to 32.4% (33) of the 102 pupils in grade 3. For the 1991-92 treatment group, the percent of discontinued and not discontinued pupils served by a compensatory program varied. In grade 2, no discontinued pupils were served in a compensatory program compared to 80.0% (4) of the five not discontinued pupils. In grade 3, 13.0% (9) of the 69 discontinued pupils were served in a compensatory program compared to 72.7% (24) of the 33 not discontinued pupils.

Of the 162 pupils in the 1992-93 Reading Recovery treatment group, 150 pupils were in a school and at a grade level where a compensatory program was in operation during the 1993-94 school year (see Table 12). Of these 150 pupils, 42.7% (64) were served in a compensatory education program. By grade level, four (28.6%) of the 14 pupils in grade 1 was served, compared to 44.1% (60) of the 136 pupils in grade 2. In grade 2, 28.6% (22) of the 77 discontinued pupils were served compared to 64.4% (38) of the 59 not discontinued pupils.

Table 13 summarizes results for Analysis 3.2, the distributions of pupils in the 1991-92, 1992-93, and 1993-94 Reading Recovery treatment groups who followed a normal grade-level progression. Only pupils who were enrolled in the Columbus Public Schools during the month of November in all of their follow-up years (1992, 1993, and/or 1994) were included in the analysis. The numbers of pupils included from the three treatment groups were: 97 pupils (82.9%) from the 1991-92 treatment group, 131 pupils (80.9%) from the 1992-93 treatment group, and 134 pupils (92.4%) from the 1993-94 treatment group, for a combined total of 362 pupils (85.4%) from the three treatment groups.

The percentages of pupils who followed a normal grade-level progression were as follows: 88.7% (86) of the 97 pupils from the 1991-92 treatment group followed a normal grade-level progression into the fourth grade; 82.4% (108) of the 131 pupils from the 1992-93 treatment group followed a normal

Table 12

Percent and Number of Pupils in the 1991-92 and 1992-93 Reading Recovery Treatment Groups by Compensatory Education Program Status in 1993-94

1991-92 Treatment Group		Compensatory Education Program Status					
		Not In Comp. Ed.		In Comp. Ed.		Total	
Grade in 1993-94	Pupil Category	%	n	%	n	%	N
2	Discontinued	0.0	(0)	0.0	(0)	0.0	(0)
	Not Discontinued	20.0	(1)	80.0	(4)	100.0	(5)
	Subtotal	20.0	(1)	80.0	(4)	100.0	(5)
3	Discontinued	87.0	(60)	13.0	(9)	100.0	(69)
	Not Discontinued	27.3	(9)	72.7	(24)	100.0	(33)
	Subtotal	67.6	(69)	32.4	(33)	100.0	(102)
	Total	65.4	(70)	34.6	(37)	100.0	(107)

(table continues)

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Table 12 (continued)

Percent and Number of Pupils in the 1991-92 and 1992-93 Reading Recovery Treatment Groups by Compensatory Education Program Status in 1993-94

1992-93 Treatment Group		Compensatory Education Program Status					
		Not In Comp. Ed.		In Comp. Ed.		Total	
Grade in 1993-94	Pupil Category	%	n	%	n	%	N
1	Discontinued	0.0	(0)	0.0	(0)	0.0	(0)
	Not Discontinued	71.4	(10)	28.6	(4)	100.0	(14)
	Subtotal	71.4	(10)	28.6	(4)	100.0	(14)
2	Discontinued	71.4	(55)	28.6	(22)	100.0	(77)
	Not Discontinued	35.6	(21)	64.4	(38)	100.0	(59)
	Subtotal	55.9	(76)	44.1	(60)	100.0	(136)
	Total	57.3	(86)	42.7	(64)	100.0	(150)

Note. Pupils served from September 20, 1993 through the end of the school year were included in the "In Comp. Ed. Program" category. Compensatory programs included the Chapter 1 Reading program, the Early Literacy program, and the Reading Recovery program. Pupils on a waiting list to be served were included in the "Not in Comp. Ed." category. Table excludes pupils in school/grade combinations where compensatory education programs were not offered.

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Table 13

Percent and Number of Pupils in the 1991-92, 1992-93, and 1993-94 Reading Recovery Treatment Groups by Grade-Level Progression Through November 1994

Treatment Group	Grade-Level Progression: Not Normal %	Not Normal n	Normal %	Normal n	Total %	Total N
1991-92						
Discontinued	3.2	(2)	96.8	(61)	100.0	(63)
Not Discontinued	26.5	(9)	73.5	(25)	100.0	(34)
Subtotal	11.3	(11)	88.7	(86)	100.0	(97)
1992-93						
Discontinued	6.3	(4)	93.8	(60)	100.0	(64)
Not Discontinued	28.4	(19)	71.6	(48)	100.0	(67)
Subtotal	17.6	(23)	82.4	(108)	100.0	(131)
1993-94						
Discontinued	1.0	(1)	99.0	(96)	100.0	(97)
Not Discontinued	10.8	(4)	89.2	(33)	100.0	(37)
Subtotal	3.7	(5)	96.3	(129)	100.0	(134)
Total						
Discontinued	3.1	(7)	96.9	(217)	100.0	(224)
Not Discontinued	23.2	(32)	76.8	(106)	100.0	(138)
Subtotal	10.8	(39)	89.2	(323)	100.0	(362)

Note. The 1991-92 treatment group was followed for 3 years (normal progression into grade 4), the 1992-93 treatment group for 2 years (normal progression into grade 3), and the 1993-94 treatment group for 1 year (normal progression into grade 2). Only pupils enrolled in the Columbus Public Schools during November in each of their follow-up years were included in the analysis.

progression into the third grade; and 96.3% (129) of the 134 pupils from the 1993-94 treatment group followed a normal grade-level progression into the second grade in 1994-95. Overall, 89.2% (323) of the 362 pupils in the analysis followed a normal grade-level progression and 10.8% (39) did not.

In each of the three treatment groups a greater percentage of discontinued pupils than not discontinued pupils followed the normal progression. For discontinued pupils, the percentages who followed the normal progression ranged from 93.8% for the 1992-93 treatment group pupils to 99.0% for the 1993-94 treatment group pupils. For not discontinued pupils the percentages who followed a normal progression ranged from 71.6% for the 1992-93 treatment group pupils to 89.2% for the 1993-94 treatment group pupils.

Over the three year period 1991-92, 1992-93, 1993-94, data indicated that the percentage of treatment group pupils retained in grade 1 had decreased, then increased, and then decreased again. For 1991-92, data were available for 117 pupils and showed 1.7% (2) of those served in 1991-92 had been retained in grade 1. In 1992-93, 8.1% (13) of the 160 treatment group pupils were retained in grade 1. For 1993-94, 2.1% (3) of the 142 pupils with available retention data were retained in grade 1, while 4.3% (18) of the 419 pupils in the three groups combined had been retained in grade 1.

Summary/Recommendations

In 1993-94 the Reading Recovery program was located in 38 elementary schools and had a staff of 61 teachers (22.0 FTEs). For evaluation purposes, the program started on September 20, 1993 and continued through May 13, 1994. The program served a total of 402 underachieving first-grade pupils who appeared unlikely to read successfully without intensive instruction. These 402 pupils were enrolled in the program for an average of 62.0 days, attended the program an average of 53.8 days, and received an average of 42.9 lessons. The number of lessons received ranged from none to 114.

Pupils were discontinued from the program based on scores on diagnostic measures indicating that they were reading at the level of their classroom and based on teacher judgment that the pupils had developed effective reading strategies. Of the 402 pupils served, 26.1% (105) were discontinued, 10.0% (40) received 60 or more lessons but were not discontinued, and 63.9% (257) were not discontinued and received less than 60 lessons. Of the 98 pupils who received 60 or more lessons, 59.2% (58) were discontinued.

The treatment group consisted of the 145 pupils who were either discontinued (105) or received 60 or more lessons but not discontinued (40). The evaluation sample consisted of the 137 pupils who were discontinued or had 60 or more lessons, were English-speaking, and had a valid Total Reading score on the MAT6 spring test. The three desired outcomes for the 1993-94 Reading Recovery program were met. Of the 145 treatment group pupils, 135 (93.1%) displayed over time each of the three reading strategic processing behaviors, including monitoring reading, constructing meaning, and integrating sources of information (criterion was 50.0%). Of the 145 pupils in the treatment group, retention data were available for 142 pupils. Of these 142 pupils, 139 (97.9%) were not retained (criterion was 75.0%). Of the 145 treatment group pupils, 138 (95.2%) read five or more books at text reading level 8 or above (criterion was 50.0%).

Records of parent contacts and activities maintained by program teachers for the 402 pupils served indicated 434 different parents or guardians were involved in some way with the program. These 434 individuals made a total of 1105 contacts with program teachers. The 145 treatment group pupils represented 36.1% of the 402 pupils served, but their parents represented 51.0% (563) of the total number of contacts and 41.7% (181) of the individual parents involved in the program.

Twenty-six (19.0%) of the evaluation sample pupils reached the average NCE (42.2) for the district as a whole. The percentages of pupils who were at various percentile levels on the spring test were as follows: (a) 13.9% (19) were at the 50%ile or above (grade level); and (b) 81.0% (111) were below the 37%ile and still eligible for Chapter 1 services.

Analyses of the long-term effects of Reading Recovery produced the following results. Of the former Reading Recovery pupils who were in a school and at a grade level where a compensatory education program was in operation in 1993-94, 34.6% (37) of the pupils from the 1991-92 treatment group and 42.7% (64) of the pupils from the 1992-93 treatment group were served in a compensatory program.

Of the 362 pupils from the combined 1991-92, 1992-93, and 1993-94 treatment groups who remained in Columbus Public Schools through November 1994, 89.2% (323) followed a normal grade-level progression. The retention rates for grade 1 were: 1.7% for the 1991-92 treatment group, 8.1% for the 1992-93 treatment group, 2.1% for the 1993-94 treatment group, and 4.3% for the three treatment groups combined.

The Reading Recovery program has been continued during the 1994-95 school year, and it is recommended that it continue. With that in mind, the following recommendations are presented:

1. The process by which pupils with less than 60 lessons are transferred from the Reading Recovery program to the Early Literacy program needs to be closely monitored. From 1992-93 to 1993-94, the percent of treatment group pupils decreased from 53.1% (162 of 305 pupils served) to 36.1% (145 of 402 pupils served). The decrease in treatment group size is directly related to transferring pupils from Reading Recovery to Early Literacy before the pupils received 60 lessons, which is the number of lessons needed to be included in the treatment group. If pupils are making progress in literacy acquisition, program teachers should make every effort to continue to serve them beyond 60 lessons.

2. Efforts should continue for exploring ways to minimize the amount of time needed to collect data on pupils served. Much teacher frustration exists because of the volume of record keeping required for the program. Teachers maintain records for both Columbus Public Schools and The Ohio State University College of Education. If both institutions used the same set of data, reporting by both institutions would be consistent and the amount of paperwork required of teachers reduced.

3. As increased parent involvement is regarded as one of the indicators of effective schools, every effort must be undertaken to promote parental involvement in the program, especially in the areas of planning, operation, and evaluation.

4. The earliest possible identification of pupils needing special education instruction should be emphasized. Pupils with special needs can be better served by teachers with expertise in specific special education areas. Reading Recovery is not a special education program. If pupils with special education are not identified early, they remain in the Reading Recovery program too long, creating frustration for both pupils and teachers.

5. The whole language instructional strategies and techniques used by program teachers need to be shared with and enhanced by the regular classroom teacher. The instruction provided by the program teacher and by the regular classroom teacher must complement each other. The academic achievement of pupils will suffer if they receive mixed messages in their reading and writing instruction. Opportunities must be made available for program teachers and regular classroom teachers to develop a consistent whole language based approach to instruction.

6. Inservice meetings should be continued to provide program teachers the opportunity to enhance their instructional intervention skills, to share instructional ideas with one another, and to clarify any concerns or misconceptions they may have about the total Reading Recovery program.

7. An on-going process of site visitations by the program evaluator needs to be continued. These visits provide invaluable information for the program evaluator in the areas of content and instruction and provide program teachers the opportunity to clarify questions they may have about evaluation requirements and record keeping. These visitations also help build a rapport between the program teacher and program evaluator.

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Appendix A

Concepts About Print and Dictation

CONCEPTS ABOUT PRINT SCORING SHEET

Date: _____ Stones: _____ Sand: _____ TEST SCORE /24

School Name: _____

Classroom Teacher: _____

Use the script when administering this test.

PAGE	SCORE	ITEM
Cover	_____	1. Front of book
2/3	_____	2. Print contains message
4/5	_____	3. Where to start
	_____	4. Which way to go
	_____	5. Return sweep to left
	_____	6. Word by word matching
6	_____	7. First and last concept
7	_____	8. Bottom of picture
8/9	_____	9. Begin 'The' (Sand) or 'I' (Stones) bottom line, top OR turn book
10/11	_____	10. Line order altered
12/13	_____	11. Left page before right
	_____	12. One change in word order
	_____	13. One change in letter order
14/15	_____	14. One change in letter order
	_____	15. Meaning of?
16/17	_____	16. Meaning of period/full stop
	_____	17. Meaning of comma
	_____	18. Meaning of quotation marks
	_____	19. Locate M m H h (Sand) OR Tt Bb (Stones)
18/19	_____	20. Reversible words (was, no)
20	_____	21. One letter: two letters
	_____	22. One word: two words
	_____	23. First & last letter of word
	_____	24. Capital letter

Directions

1. Place the pupil's ID label on the back of the form. If there is no ID label for a pupil, please provide student number, birthdate, student's legal name (last, first, MI), grade, and school code in the space provided.
2. Put an X in the blank next to the form of the test the student took (either Stones or Sand).
3. In the score column, place a 1 (one) beside each correct item. If the item was incorrect, place a 0 (zero) in the column.
4. Record the total number of items correct in the test score box.
5. Turn this form over and enter data from the Dictation test.

DICTATION INDIVIDUAL SCORING SHEET

Date: _____

School Name: _____

Classroom Teacher: _____

TEST SCORE /37

| | | |

Appendix B

Selection Score Matrix

GRADE 1 OBSERVATIONAL TESTS SCORING MATRIX
TO DETERMINE PUPIL'S SELECTION SCORE

DICTATION SCORE	CONCEPTS ABOUT PRINT SCORE																	...24
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
0	19	21	24	26	29	31	34	36	38	41	43	46	48	51	53	56	58	60	
1	20	23	25	27	30	32	35	37	40	42	45	47	49	52	54	57	59	62	
2	21	24	26	29	31	33	36	38	41	43	46	48	51	53	55	58	60	63	
3	22	25	27	30	32	35	37	40	42	44	47	49	52	54	57	59	62	64	
4	24	26	28	31	33	36	38	41	43	46	48	50	53	55	58	60	63	65	
5	25	27	30	32	35	37	39	42	44	47	49	52	54	57	59	61	64	66	
6	26	28	31	33	36	38	41	43	45	48	50	53	55	58	60	63	65	67	
7	27	30	32	34	37	39	42	44	47	49	52	54	56	59	61	64	66	69	
8	28	31	33	36	38	41	43	45	48	50	53	55	58	60	63	65	67	70	
9	29	32	34	37	39	42	44	47	49	51	54	56	59	61	64	66	69	71	
10	31	33	36	38	40	43	45	48	50	53	55	58	60	62	65	67	70	72	
11	32	34	37	39	42	44	46	49	51	54	56	59	61	64	66	68	71	73	
12	33	35	38	40	43	45	48	50	53	55	57	60	62	65	67	70	72	75	
13	34	37	39	41	44	46	49	51	54	56	59	61	63	66	68	71	73	76	
14	35	38	40	43	45	48	50	52	55	57	60	62	65	67	70	72	74	77	
15	36	39	41	44	46	49	51	54	56	58	61	63	66	68	71	73	76		
16	38	40	43	45	47	50	52	55	57	60	62	65	67	69	72	74			
17	39	41	44	46	49	51	54	56	58	61	63	66	68	71	73	76			
18	40	42	45	47	50	52	55	57	60	62	64	67	69	72	74				
19	41	44	46	49	51	53	56	58	61	63	66	68	71	73	75				
20	42	45	47	50	52	55	57	59	62	64	67	69	72	74					
21	44	46	48	51	53	56	58	61	63	66	68	70	73						
22	45	47	50	52	54	57	59	62	64	67	69	72	74						
23	46	48	51	53	56	58	61	63	65	68	70	73							
24	47	49	52	54	57	59	62	64	67	69	72	74							
.																			
.																			
.																			
37																			

NOTE: Pupils with a Selection Score not included on this matrix will not qualify for a Chapter 1 program.

Appendix C

Teacher Census Form

Teacher Census Form
1993-94

Social Security Number __ __ __-__ __-__ __ __ __

Name _____
(Legal Name for Mailing Labels)

School Assignment _____ Cost Center __ __ __

Your Program Coordinator/Teacher Leader _____

List all Chapter 1/DPPF programs you are involved with:

	Program	Program Code
1.	_____	__ __ __ __ __
2.	_____	__ __ __ __ __
3.	_____	__ __ __ __ __
4.	_____	__ __ __ __ __

Full-Time Employee _____
or (check one)
Part-Time Employee _____

Number of Reading Recovery sections per day _____

Number of Early Literacy -Gr. 1 groups per day _____

Number of Early Literacy -Gr. 2 groups per day _____

Appendix D

Calendar Worksheet/Parent Involvement Log

CALENDAR WORKSHEET FOR COMPUTING DAYS OF PUPIL SERVICE
1993-94
Reading Recovery

Student Legal Name _____
Last, First

Student Birthdate __ __ __ __ __ __
M M D D Y Y

Student Number __ __ __ __ __ __

Race Code ____ (1-5) Sex ____ (M or F)

Note. Please keep original worksheets for all pupils (even for pupils who leave) Do not send to program coordinator or to other RR schools

RR Teacher Name _____

Program Code 9 4 3 0 4

School _____

School Code __ __ __

Grade Level 0 1

Selection Score __ __

1992-93	M	T	W	TH	F	M	T	W	TH	F	M	T	W	TH	F	M	T	W	TH	F	SUB-TOTALS Scheduled (1,2,3,9)	SUB-TOTALS Served (2,3,9)
Aug 30 - Sept 24	M	M	1	2	3	H	7	8	9	10	13	14	15	16	17	20	21	22	23	24		
(Max schdl days=5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
Sept 27 - Oct 22	27	28	29	30	1	4	5	6	7	8	11	12	13	14	COTA	18	19	20	21	22		
(Max schdl days=19)															0							
Oct 25 - Nov 19	25	26	27	28	29	1	2	3	4	5	8	9	10	11	12	15	16	17	18	PC		
(Max schdl days=19)																				0		
Nov 22 - Dec 17	22	23	24	H	N	29	30	1	2	3	6	7	8	9	10	13	14	15	16	17		
(Max schdl days=18)				0	0																	
Jan 3 - Jan 28	3	4	5	6	7	10	11	12	13	14	H	18	19	20	21	24	25	26	27	28		
(Max schdl days=19)											0											
Jan 31 - Feb 25	31	1	2	3	4	7	8	9	10	11	14	15	16	17	18	PC	22	23	24	25		
(Max schdl days=19)																0						
Feb 28 - Mar 25	28	1	2	3	4	7	8	9	10	11	14	15	16	17	18	21	22	23	24	25		
(Max schdl days=20)																						
Mar 28 - Apr 22	28	29	30	31	N	N	N	N	N	N	11	12	13	14	15	18	19	20	21	22		
(Max schdl days=14)					0	0	0	0	0	0												
Apr 25 - May 20	25	26	27	28	29	2	3	4	5	6	9	10	11	12	13	16	17	18	19	20		
(Max schdl days=15)																0	0	0	0	0		
May 23 - June 17	23	24	25	26	27	H	31	1	2	3	6	7	8	9	R	13	14	15	16	17	////////	////////
(No scheduled days)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	////////	////////

(Maximum Scheduled = 148)
(Maximum Served = 148)

TOTALS
Scheduled | Served

TOTAL LESSONS

SERVICE CODES:

0 = Pupil Not Scheduled (Inservice, Teacher Illness, Personal Day, Snow Day, Parent Conference Day, etc.)
1 = Pupil Scheduled and Not Served (Absent from School/Class)
2 = Pupil Served - One Lesson
3 = Pupil Served - Two Lessons
9 = Pupil Roaming in the Known

RACE/ETHNIC CODES:

1 = Non Minority
2 = Black
3 = Spanish Surname
4 = Asian American
5 = American Indian

Date Transferred to Early Literacy 1
__ __ __ __ __ __
M M D D Y Y

Date Discontinued
__ __ __ __ __ __
M M D D Y Y

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ESEA - Chapter 1
Parent Involvement Log
1993-94

Program Code _____ Last _____ (Name of Pupil) First _____ Grade ____

Parent/Guardian _____ Address _____ Zip _____ Phone Number _____

THE COLLECTION OF PARENT INVOLVEMENT DATA IS REQUIRED BY CHAPTER 1.

Please check if the following two activities occurred for this pupil anytime this year.

☐ Parent helped child with homework
☐ Parent read to child or child read to parent

DIRECTIONS: Please indicate in the fields below the date, activity, and name of parent/guardian. Obviously, you may keep expanded notes about activities somewhere else.

Date MMDDYY	Activity* (1-5)	Attendee(s) Parent/Guardian

*Kinds of Parent Involvement to record for the column labeled Activity

(1) Involved in planning (do not include advisory council)
(2) Group meetings (do not include advisory council)
(3) Individual conferences (telephone conferences included)
(4) Parental classroom visits
(5) Home visits

Appendix E

Evidence of Strategic Processing Collection Form

Columbus Public Schools
ESEA Chapter 1 Reading Programs

Collection Form for **READING DESIRED OUTCOME 1**

"Evidence of Strategic Processing"

1993-94

Student Legal Name _____ Program Teacher Name _____
Last, First

Student Birthdate __ __ __ __ __ __ Grade __ __ Program Code __ __ __ __ __
M M D D Y Y

Student Number __ __ __ __ __ __ School _____

RATIONALE AND PROCEDURE: One of the benchmarks for determining whether or not a student is deemed successful as a reader is if the student exhibits behaviors which display strategic processing over a period of time. Three of these behaviors are listed below. The student should be observed over a period of time (the full school year) and will have met this desired outcome if he/she appropriately exhibits each behavior at least once during the observational periods. The program teacher should observe these behaviors multiple times during the treatment period and record the behaviors, when observed, on the form below.

CHECKLIST

DIRECTIONS: Place a "X" (check) in the appropriate space when the behavior is consistently observed.

OUTCOME INDICATORS	OBSERVATIONAL PERIODS		
Behaviors	Sep./Nov.	Dec./Feb.	Apr./May
1. Constructs Meaning	_____	_____	_____
2. Monitors Reading	_____	_____	_____
3. Integrates Sources of Information	_____	_____	_____

*Please share this with the classroom teacher during your conference time. Do not send a copy of this form to the new school when a student transfers to another school. You will need this information to complete each pupil's PDS in the Spring. Also, **please** send a copy of this form to your coordinator at the end of the year.*

Appendix F

Independent Reading Record Sheet

ESEA Chapter 1/DPPF
PUPIL INDEPENDENT READING RECORD SHEET
1993-94

Student Legal Name _____ Program Teacher Name _____
Last, First

Served from _____ to _____. Grade __ __ School _____

NAME OF BOOK READ	DATE	GRADE 1 ONLY RUNNING RECORD Level	%	SC	READING INDICATOR CONFERENCE DISCUSSION	WRITTEN RESPONSE	OTHER (SPECIFY)

YOU WILL REPORT THE NUMBER OF BOOKS READ ON THE PUPIL DATA SHEET IN THE SPRING.

KEEP THIS FORM FOR YOUR RECORDS. PLEASE SEND A COPY OF THIS FORM TO YOUR COORDINATOR AT THE END OF THE YEAR.

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Appendix G

Pupil Data Sheet

Columbus Public Schools
Compensatory Education Programs

March 28, 1994
9:18

SHEET

PUPIL DATA SHEET

B 264 SCHOOL CODE _ _ _ PROGRAM CODE 9 4 3 0 4 SSN _ _ _ _ _ _ _ _ _

SCHOOL NAME _____ PROGRAM NAME _____ TEACHER NAME _____

1. STUDENT NAME _ _ _ _ _ _ _ _ _ _ _ _ _ _ / _ _ _ _ _ _ _ _ _ _ / _
   Last First MI

2. STUDENT NO. _ _ _ _ _ _ GRADE _ _ BIRTHDATE _ _ / _ _ / _ _

3. AVERAGE HOURS PER WEEK OF INSTRUCTION | | | | | |

4. PUPIL PROGRESS	NONE	SOME	MUCH
5. IS THIS PUPIL ENGLISH SPEAKING?	NO	YES	
6. WAS THIS PUPIL DISCONTINUED? (CAREFULLY READ GUIDELINES)	NO	YES	
7. PARENT HELPED WITH HOMEWORK?	NO	YES	
8. PARENT READS TO CHILD OR CHILD READS TO PARENT?	NO	YES	

FOR NUMBERS 9-13, FILL IN THE NUMBER OF THIS PUPIL'S PARENTS INVOLVED IN EACH ACTIVITY DURING THE YEAR AND TOTAL NUMBER OF CONTACTS.

	NO. OF PARENTS	TOTAL NO. OF CONTACTS
9. PLANNING		
10. GROUP MEETINGS		
11. INDIVIDUAL CONFERENCES		
12. CLASSROOM VISITS		
13. HOME VISITS		

14. NUMBER OF DAYS SERVICE SCHEDULED (CAREFULLY READ INSTRUCTIONS) THRU 05-13-94 | | | |

15. NUMBER OF DAYS SERVICE RECEIVED (CAREFULLY READ INSTRUCTIONS) THRU 05-13-94 | | | |

16. NUMBER OF LESSONS THRU 05-13-94 | | | |

17. WHILE IN YOUR CLASS, the Number of Books Read at Text Reading Level Greater than 7 | | | |

(OVER)

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Columbus Public Schools
Compensatory Education Programs

March 28, 1994
9:18

SHEET
B 264

PUPIL DATA SHEET

PROGRAM CODE 9 4 3 0 4

STUDENT NAME _ _ _ _ _ _ _ _ _ _ _ _ _ _ / _ _ _ _ _ _ _ _ _ _ _ _ / _
last first mi

STUDENT NO _ _ _ _ _ _ GRADE _ _ BIRTHDATE _ _ / _ _ / _ _

INDICATE THE STRATEGIC PROCESSING BEHAVIORS DISPLAYED BY PUPIL:

18. CONSTRUCTS MEANINGS NO YES

19. MONITORS READING NO YES

20. INTEGRATES INFORMATION SOURCES NO YES

Prepared by
Office of the Deputy Superintendent
Department of Program Evaluation
(pif dps)